



ALNA-C® series



Features

- Extended C-Band (3.4-4.2 GHz)
- GaAs/HEMT Technology
- Over 200,000 Hours MTBF
- Built-in Regulator +11 to +15 VDC operation
- Built-in Interstage Transmit Reject Filter
- Single or redundant operation
- Pressurizable W/G Input
- Power supply via RF connector or Power Connector
- Extreme operating temperature
- Weatherproof housing
- Three year warranty

Overview

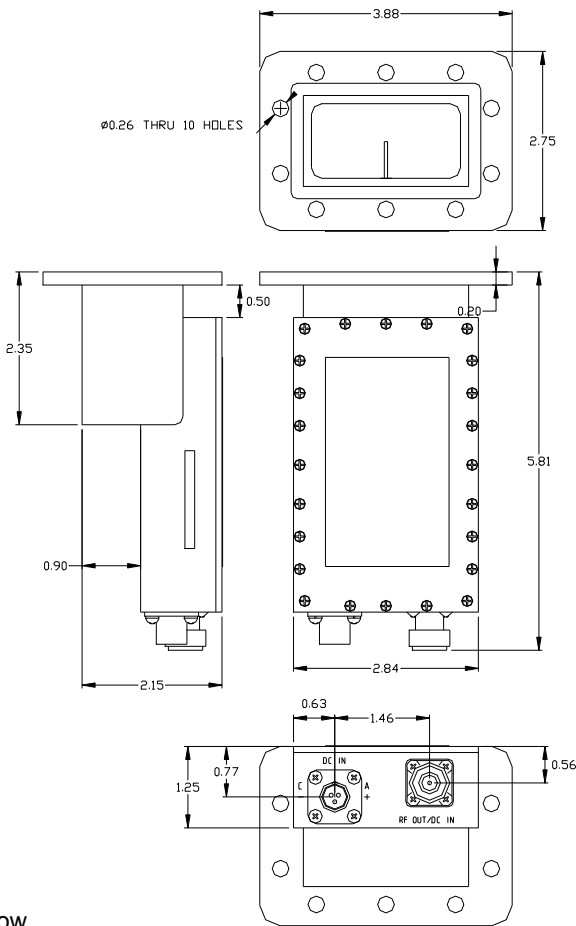
The Advantech's Low Noise Amplifier (LNA) ALNA-C™ is a low noise, highly dynamic range amplifier suitable for use in satellite earth station receiver applications where ultra low noise and high reliability are critical, as well as in other systems operating in the frequency range of 3400 to 4200 MHz.

The LNA combines low noise with high linearity and wide band. The built-in Interstage Transmit Reject Filter allows the LNA to operate at the input power of -35 dBm in the TX band of 5.8 – 6.75 GHz.

The C-band LNA is available with Noise temperature ranging from 25° K to 45° K. With weather proved packaging, the LNA can meet the demands of the installations in severe environmental conditions.

The 1:1 and 1:2 redundant system configurations can be provided. They require special Redundancy Kit.

The Advantech's LNA provides an industry leading MTBF of over 200,000 hours.



Options

- Input Isolator
- Redundant operation

Accessories

- External Transmit Reject Filter

C-Band LNA 25° to 45° K

Technical Specifications

Electrical Characteristics

Frequency range	3.4 – 4.2 GHz
Noise Temperature @ 23°	25°, 30°, 35°, 40°, 45°
Gain	60 dB min
Gain flatness	2.0 dB p.p. full bandwidth 0.5 dB p.p. 40 MHz
Gain slope	0.01 dB/MHz max
Gain variation over operating temperature range	2 dB p.p. max
Gain stability @ constant ambient temperature	± 0.1dB / hour ± 0.2dB / 24 hours
Output power at 1dB of compression	+10 dBm min
Spurious	-55 dBc max
Max input power	0 dBm
Input VSWR	2.5:1 Typical
Output VSWR	1.75:1
Operating voltage	11 - 15 VDC
Current consumption	150 - 170 mA

Mechanical Characteristics

Dimensions (L x W x H)	5.8" x 3.9" x 2.75" (147.32 x 99.06 x 69.85 mm)
Weight	1.32 lb (600 gr)
Input waveguide flange	CPR 229 G
Output connector	N Type female
Power connector	MS3112E8-3P

Environmental Conditions

Operating temperature	-40°C to +55°C -50°C to +60°C (Optional)
Humidity	100%, condensing (2" rain/hour)
Altitude	10,000' AMSL, de-rated 2°C/1,000' from AMSL

To order, please select model number from the following list:

- ALNA-C25™
- ALNA-C30™
- ALNA-C35™
- ALNA-C40™
- ALNA-C45™

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